

### **REMARKS**

The *Office Action* considered claims 30-48. By this paper, Applicants amend independent claims 30 and 44. Applicants also hereby amend dependent claims 31, 33, 37, 45, and 46. Applicants further amended dependent claims 35, 36, 39, 43, and 47 into independent form. Applicants request reconsideration and allowance of claims 30-48 in light of the amendments to the claims and the remarks presented below.

The *Office Action* objected to claims 30 and 44 for containing certain informalities. Applicants hereby amend claims 30 and 44 to address the informalities identified by the *Office Action*. The objections to claims 30 and 44 are now moot in light of the amendments herein.

The *Office Action* rejected claims 30, 31, 33, 37, and 44-46 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Applicants hereby amend claims 30, 31, 33, 37, and 44-46 to address the issues identified by the *Office Action*. The 35 U.S.C. § 112 rejection of 30, 31, 33, 37, and 44-46 is now moot in light of the amendments herein.

The *Office Action* also rejected claims 30, 31, 33, 34, 73, 38, 40-42, 44, and 48 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,546,788 to Magerle (hereinafter "*Magerle*"). Additionally, the *Office Action* rejected claim 32 under 35 U.S.C. § 103(a) as being unpatentable over *Magerle* in view of U.S. Patent Application Publication Number 2005/0009197 to Adams et al. (hereinafter "*Adams*").

As an initial matter, one core idea of the present invention as claimed in independent claims 30 and 44 is to provide a reaction chamber on the scanning probe microscope, within which the sample can be influenced in a desired manner, with previous and/or subsequent

scanning processes being carried out on the surface of the sample by means of the probe within the reaction chamber.

In contrast to the present invention as claimed in independent claims 30 and 44, *Magerle* teaches a reaction chamber or device 4 that is separate from the scanning probe microscope. *Magerle*, at Fig. 1. Thus, it is not surprising that *Magerle* teaches that to order to use the reaction chamber or device 4, "the sample is taken out of its working position in the . . . scanning probe microscope 20, and is placed in a working position in the ablating device 4. Upon completion of the ablative procedure [], the sample is removed from the ablating device and placed back into the working position in . . . the scanning probe microscope 20." *Id.* at col. 11, ll. 16-24.

Thus, *Magerle*, whether considered singly or in combination with *Adams*, fails to teach or otherwise suggest a number of limitations of Applicants' invention as recited in the currently amended independent claims 30 and 44. For example, *Magerle* and *Adams* fail to teach or otherwise suggest a scanning probe microscope, as recited by currently amended independent claim 30, comprising "a base frame, to which a probe holder with a probe as well as a sample mount are attached or can be attached, . . . a reaction chamber attached to the base frame of the scanning probe microscope, with the sample mount arranged in it, with the reaction chamber having an opening on its side facing the probe, through which the probe can enter the reaction chamber; whereby the probe is moveable . . . between a measurement position  $P_M$  inside the reaction chamber and a withdrawn sample preparation position  $P_V$  outside the reaction chamber."

Along similar lines, *Magerle* and *Adams* fail to teach or otherwise suggest a method for treatment and investigation of surfaces with the aid of a probe of a scanning probe microscope and of a reaction chamber which is installed in the scanning probe microscope, as recited by currently amended independent claim 44, comprising "a first scanning probe microscopic

investigation of an area of a surface of a sample which is arranged in an open reaction chamber is carried out; the probe is withdrawn in a direction perpendicular to the investigation plane (xy plane), through a defined movement distance S from its measurement position PM to a sample preparation position PV; . . . the reaction chamber is opened again in order to allow the probe to enter the reaction chamber; after opening the reaction chamber the probe is moved back from the sample preparation position PV to the previous measurement position PM or to a new initial position PA in the direct vicinity of the previous measurement position."

In contrast to the invention as claimed in independent claims 30 and 44, outside of impermissible hindsight, Applicants can find nothing in *Magerle*, or in any of the other references of record, that would suggest any reason or advantage to providing a reaction chamber on a scanning probe microscope as recited by claims 30 and 44. See M.P.E.P. § 2142 (stating that "impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art."). Accordingly, *Magerle*, whether considered singly or in combination with *Adams*, fails to establish a prima facie case of obviousness over amended independent claims 30 and 44, which are thus allowable.

Each of dependent claims 31-34, 37, 38, 40-42, 45, 46, and 48 depends from one of independent claims 30 and 44, and is therefore allowable over *Magerle* and *Adams* for at least these reasons. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

The *Office Action* objected to claims 35, 36, 39, 43, and 47 as being dependent upon a rejected base claim, but indicated each would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. By this paper, Applicants have rewritten claims 35, 36, 39, 43, and 47 in independent form including all of the

limitations of the base claim and intervening claims. Accordingly, Applicants request allowance of claims 35, 36, 39, 43, and 47.

In view of the foregoing, Applicants respectfully submit that the remaining rejections of record are also now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that Applicants have not acquiesced to any of the purported teachings or assertions made in the *Office Action* regarding the cited art or the pending application, including any official notice. Instead, Applicants reserve the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any official notice, explicitly or implicitly, Applicants specifically request that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event the Examiner finds any other issues that would need to be addressed before allowance, the Examiner is invited to contact Applicants' undersigned Attorneys directly.

The Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to Deposit Account No. 23-3178: (1) any filing fees required under 37 C.F.R. § 1.16; (2) any patent application and reexamination processing fees under 37 C.F.R. § 1.17; and/or (3) any post issuance fees under 37 C.F.R. § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefor and charge any additional fees that may be required to Deposit Account No. 23-3178.

Dated this 29<sup>th</sup> day of November, 2010.

Respectfully submitted,

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